

REMARKS

In the Office Action, the Examiner correctly indicated the listing of claims currently present in the application. Briefly, the claims in the present application include independent claim 64 and 65 as well as dependent claims 3, 5, 6, 8-10, 14-26, 28-30, 35, 37, 38, 40, 41, 44-57 and 60. Independent claims 64 and 65 were added to the application in the prior Response dated May 9, 2008 based upon a lengthy telephone interview with the Examiner conducted on April 15, 2008. New claims 64 and 65 were added to the application to overcome the previously cited Ehlers U.S. Patent No. 5,572,438 and the Peevey U.S. Patent No. 7,043,459. Following the Response and the submission of new claims 64 and 65, the Examiner is no longer relying upon the prior combination of references to reject the claims in the pending application. Instead, the Examiner has cited a new combination of references to reject all of the pending claims.

Specifically, all of the claims, including independent claims 64 and 65, have been rejected under 35 USC § 103(a) as being unpatentable over the Brown U.S. Patent No. 4,847,782 in view of the Kirk U.S. Patent No. 4,998,024 and the Rudden U.S. Patent No. 4,998,024. The Examiner is requested to reconsider the claim rejections based upon the applicant's following summary of the cited prior art and arguments for allowance.

The Examiner is invited to contact the applicant's undersigned attorney with any additional changes or comments regarding the new claims in the application.

Independent Claim 64

Independent claim 64 is directed to a method of providing a consumption management system to a plurality of customers of a utility that allows the utility to manage the demand for the commodity. Each of the customer sites includes a plurality of devices that use the commodity, where each device is equipped to determine the instantaneous rate at which the commodity is being delivered to the device. As required by claim 64, each of the customers is allowed to individually subscribe to one or more of a plurality of energy management programs that are defined by the utility.

During the supply of the commodity to each of the devices at the plurality of customer sites, the instantaneous rate at which the commodity is being delivered to each of the devices is measured and sent to the utility. At the utility, a subset of the devices is defined where the subset includes devices of the same type in use by the subscribing customers.

Based upon this aggregation of similar devices, the utility determines, in real time, the capacity of the commodity that can be managed (shed) for the subset of the devices by activating the subscribed energy management program for the subset of devices. Thus, the utility can determine, in real time, the amount of commodity consumption that can be taken off-line and thus managed by activating one or more of a plurality of energy management programs. In this manner, the utility can shed a known, measured commodity load.

As further required by claim 64, at least one of the energy management programs is activated by the utility when the total demand for the commodity approaches a threshold capacity determined by the utility. The activation of the energy management program adjusts the operational settings for each device of the subset of devices to reduce consumption of the commodity by the subset.

As can be understood by the above two limitations, the utility can first determine, in real time, the capacity of the commodity that can be managed by activating one of the subscribed energy programs. When the total demand for the commodity approaches a threshold capacity, the utility can make an informed decision as to which of the subscribed energy management programs to activate to reduce consumption of the commodity by a known amount. Thus, the receipt of the instantaneous rate at which the commodity is being delivered to each of the devices at the utility allows the utility to determine, in real time, the amount of commodity that can be managed by activating one or more of a plurality of energy management programs.

After one or more of the energy management programs has been activated, the method of claim 64 verifies, in real time, a reduction in the rate at which the commodity is being delivered to each device of the subset of devices. Thus, after the program has been activated, the utility verifies whether the activation of the energy management program has the desired effect of reducing consumption of the commodity.

Based upon the verification of the energy management, the method of claim 64 provides a billing incentive to each subscribing customer based on the actual reduction in the rate the commodity is delivered to the customer site following activation of the subscribed energy management program. Thus, the method of claim 64 rewards only those customers that subscribe to the program and have had their commodity consumption managed as a direct result of activation of the subscribed energy management program.

Finally, independent claim 64 allows the subscribing customer, if permitted by the energy management program, to override the adjusted operational settings for each device. Alternatively, if the subscribed energy management program does not allow the customer to override the operational settings, the method of claim 64 prevents such override during activation of one of the energy management programs.

Claim Rejection

In rejecting newly added independent claim 64, the Examiner has relied upon a combination of three references not previously cited during the prosecution of the pending application. The applicant strongly disagrees with the Examiner's findings regarding the teaching and disclosure of the references cited, and specifically the Brown '782 reference.

The Brown '782 reference is directed to an energy management system in which energy management signals can be sent from a central control unit 12 to a series of responders 72 positioned in a utility customer's home. In the system disclosed in the Brown '782 reference, a global demand shed signal transmitter 40 contained within the

power company facility 22 can transmit a global demand shed signal to a customer through a cable television network using a series of individual cable heads 14. As described in Col. 5, lines 6-31, the demand shed signal allows for disrupting the operation of selective high energy usage appliances, such as water heaters or air conditioners, for a selected area. As described in Col. 7, line 60 to Col. 8, line 22, each appliance 70 within a home can have a responder unit 72 that receives the demand shed signal to prevent the appliance 70 from turning on. Thus, the utility can send a signal to interrupt the operation of electrical consuming appliances when the demand for electricity nears the capacity that can be provided by the utility.

The method of claim 64 requires the step of measuring the instantaneous rate at which the commodity is being delivered to each device at the plurality of customer sites. Nothing in the Brown '782 patent discloses any measurement of the instantaneous rate at which the commodity is being delivered to each device at the plurality of customer sites. Instead, the responders disclosed by the Brown '782 reference simply allow for the interruption of power to each of the appliances.

Claim 64 further requires the step of sending the instantaneous rate at which the commodity is being delivered to each device back to the utility. Nothing in the Brown '782 patent provides any disclosure of communication from one of the responder units back to the power utility. Instead, the Brown '782 reference teaches a one-directional communication system from the power company to the responder for each appliance.

Claim 64 further requires the step of determining at the utility, in real time, the capacity of the commodity that can be managed by activating the subscribed energy management program for the subset of devices. Since the Brown '782 reference provides no disclosure of measuring the instantaneous rate of commodity consumption or any type of communication from the individual appliances back to the utility, there clearly can be no determination of the capacity of the commodity that can be managed by activating the subscribed energy management program. As described previously, the method of claim

64 allows the utility to determine the amount of commodity that can be managed by activating an energy management program such that the utility can determine, in real time, the potential effect the activation of the energy management program will have on the demand for the commodity prior to activation of the program.

In attempting to show this limitation of claim 64 in the cited Brown '782 patent, the Examiner specifically cited Col. 5, lines 6-31, and Col. 13, lines 8-25. Although these portions of the Brown '782 reference discuss the ability of the system to shed demand at a series of customer sites by interrupting service to a subset of devices, the Brown '782 patent does not provide any disclosure regarding the ability of the utility to determine the capacity of the commodity that can be managed prior to activation of the energy management program, as is required by claim 64.

Based upon the above distinctions, the Brown '782 reference does not disclose many of the limitations required by claim 64, as was stated by the Examiner.

In rejecting claim 64, the Examiner stated that the Brown reference did not teach verification, in real time, of a reduction in the rate at which the commodity was being delivered to each device of the subset of devices following activation of the subscribed energy management program. To show this feature, the Examiner relied upon the Kirk '024 reference, and specifically Col. 3, lines 46-54.

As set forth previously, the step of verifying the reduction in the rate at which the commodity is being delivered to each of the devices allows the method of claim 64 to specifically determine the effect the activation of the energy management program has on the demand for the commodity in real time.

In the Kirk '024 patent, the energy controlling system includes an energy consuming device, such as a water heater, within the dwelling. Outside the dwelling is a meter 23 that receives a signal from an energy controller indicating whether the consumer is being charged at a high rate or a low rate for energy consumption. Based upon the signal received at the meter, a signal lamp will blink on and off at a slow rate when the

energy controller is applying low charge rate. The signal lamp will blink on and off at a high rate when the energy controller is applying a high charge rate. Thus, the rate of blinking of the signal lamp will indicate the cost of energy.

The Kirk '024 reference does not disclose the step of verifying, in real time, a reduction in the rate at which the commodity is being delivered to each device of the subset of devices following activation of a subscribed energy management program. Instead, the Kirk '024 patent simply flashes an indicator light to provide a visual indication of the relative cost of the commodity at a given time. Thus, the Kirk reference, when combined with the Brown '782 reference, does not provide the required disclosure for this element of independent claim 64.

In addition to the Brown '782 and Kirk '024 references, the Examiner cited the Rudden '515 reference for the concept of providing an incentive, such as a fixed billing adjustment, a proportionally scaled billing adjustment, an incentive rate and a rebate to each subscribing customer based on the actual reduction in the rate the commodity is delivered to the customer site following activation of the subscribed energy management program. For these features, the Examiner cited Col. 6, lines 33-37 of the Rudden patent. In the Rudden '515 patent, a customer can participate in a reward system by placing a load management module within their home, where the load management module receives signals from the utility to disconnect the load for a preset interval selected by the utility. During use of the load management module, the module records information regarding the load profile for the device connected to the module. At the end of a period, such as the summer months, the customer would remove the load management module and return the module to the utility. Based upon data stored within the module, the utility could then determine whether or not the customer had complied with the intent of the program and is entitled to a suitable reward, as set forth in Col. 6, lines 30-36. Although the Rudden '515 reference discloses the concept of providing a reward to a customer, the reward is not based on the actual reduction in the rate the commodity is delivered to the customer site following the activation of the subscribed energy management program, as

is require by claim 64. Instead, the Rudden '515 reference simply teaches that if the consumer allows the utility to control consumption of a commodity, the consumer will be rewarded. As discussed with the Examiner and set forth during the prosecution of the present application, independent claim 64 provides the ability for the utility to provide an incentive to the customer that is based on the actual reduction in the rate of the commodity following activation of the energy management program, rather than simply for mere participation.

Based upon the above distinctions, independent claim 64 is believed to be allowable over the combination of references cited by the Examiner.

Claims 1, 5-6, 8-10, 14-26 and 28-30 depend directly or indirectly from claim 64 and are thus believed to be allowable based upon the above arguments for allowance, as well as in view of the subject matter of each of the claims.

Independent Claim 65

Independent claim 65 is directed to a system that allows a utility to selectively reduce the consumption of a commodity being delivered to a plurality of customer sites where each customer site has a plurality of devices that use the commodity. Like claim 64 described above, claim 65 was rejected based upon the same combination of references discussed above.

Independent claim 65 requires a control system that controls the delivery of the commodity over a distribution network to the plurality of devices, where the control system receives the instantaneous rate at which the commodity is being delivered to each device at the plurality of customer sites, where the instantaneous rate is being sent by each of the devices to the control system. As described previously, the Brown '782 reference cited by the Examiner does not provide any disclosure of communication from the individual power consuming devices to a utility. Further, the Brown '782 reference does not disclose determining the instantaneous rate at which the commodity is being delivered to each device, let alone the communication of the rate to the utility.

Claim 65 further requires the step of determining at the utility, in real time, the capacity of the commodity that can be managed for the subset of devices by activating the subscribed energy management program for the subset of devices. Once again, the Brown '782 patent does not receive any information from the individual devices regarding real time energy consumption. Thus, the utility is unable to determine the capacity of the commodity that can be managed, in real time, by activating the subscribed energy management program.

Claim 65 further requires the step of verifying, in real time, a reduction in the rate at which the commodity is being delivered to each device of the subset of devices following activation of the subscribed energy management program. The Kirk '024 reference cited by the Examiner does not provide any disclosure of verifying a reduction in the rate at which the commodity is being delivered to each of the devices of the subset of devices, as was set forth above. Instead, the Kirk '024 reference simply provides a flashing indicator light indicating the energy charge rate (cost) being utilized by the electricity meter.

Additionally, claim 65 requires the step of providing an incentive to the subscribing customer based upon the actual capacity of the commodity managed during activation of the subscribed energy management program. Once again, the Rudden '515 reference relied upon by the Examiner does not provide any disclosure of this limitation of claim 65.

Based upon the above arguments for allowance, independent claim 65 is believed allowable over the combination of references cited by the Examiner.

Claims 35, 37, 38, 40, 41, 44-57 and 60 depend directly or indirectly from claim 65 and are thus believed to be allowable based upon the above arguments for allowance.

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Conclusion

As set forth above, the combination of references cited by the Examiner do not disclose the limitations of independent claims 64 and 65 for the reasons set forth above. The Examiner is invited to contact the applicant's undersigned attorney with any questions or comments, or to otherwise facilitate prosecution of the present application.

Respectfully submitted,

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